

Title (en)

POWDER FOR ELECTROLYTE IN FUEL CELLS

Title (de)

PULVER FÜR ELEKTROLYT IN BRENNSTOFFZELLEN

Title (fr)

POUDRE POUR ÉLECTROLYTE DANS DES PILES À COMBUSTIBLE

Publication

**EP 2232616 A1 20100929 (EN)**

Application

**EP 08860332 A 20081209**

Priority

- EP 2008067071 W 20081209
- DK PA200701763 A 20071210
- US 618407 P 20071228

Abstract (en)

[origin: WO2009074549A1] The present invention concerns an agglomerated powder comprising a metal oxide agglomerated with at least one alkaline carbonate to be used as an electrolyte in fuel cells. The obtained agglomerates exhibit good flow properties which facilitates the handling of the powder and improved homogeneity and stability compared to a plain mixture of the ingredients. The invention also concerns a method for agglomerating oxide powders with alkaline carbonates. Especially, the present invention is directed to agglomerating fine and irregular particulate ceria powder with lithium and sodium or potassium carbonates to be used for compaction of thin plates used as electrolytes for solid oxide fuel cells. The inventions relates to a powder to be used as electrolyte in fuel cells, comprising a metal oxide and at least one alkali carbonate. A bonding is formed between the metal oxide and the at least one alkali carbonate during mixing thereby providing an agglomerated powder and avoiding segregation.

IPC 8 full level

**H01M 6/18** (2006.01)

CPC (source: EP US)

**H01M 8/126** (2013.01 - EP US); **H01M 8/145** (2013.01 - EP US); **H01M 2300/0051** (2013.01 - EP US); **H01M 2300/0074** (2013.01 - EP US);  
**Y02E 60/50** (2013.01 - EP US); **Y02P 70/50** (2015.11 - EP US)

Citation (search report)

See references of WO 2009074549A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

**WO 2009074549 A1 20090618**; CN 101897062 A 20101124; EP 2232616 A1 20100929; JP 2011507174 A 20110303;  
TW 200937724 A 20090901; US 2010266930 A1 20101021

DOCDB simple family (application)

**EP 2008067071 W 20081209**; CN 200880120179 A 20081209; EP 08860332 A 20081209; JP 2010537409 A 20081209;  
TW 97147851 A 20081209; US 74696208 A 20081209